

Environmental Protection Agency

Pt. 63, Subpt. IIIII, Table 7

To detect . . .	You could use . . .	Principle of detection . . .
3. Level of mercury vapor in the cell room and other areas.	b. Portable mercury vapor analyzer—ultraviolet light absorption detector.	A sample of gas is drawn through a detection cell where ultraviolet light at 253.7 nanometers (nm) is directed perpendicularly through the sample toward a photodetector. Elemental mercury absorbs the incident light in proportion to its concentration in the air stream.
	c. Portable mercury vapor analyzer—gold film amalgamation detector.	A sample of gas is drawn through a detection cell containing a gold film detector. Elemental mercury amalgamates with the gold film, changing the resistance of the detector in proportion to the mercury concentration in the air sample.
	d. Portable short-wave ultraviolet light, fluorescent background—visual indication.	Ultraviolet light is directed toward a fluorescent background positioned behind a suspected source of mercury emissions. Elemental mercury vapor absorbs the ultraviolet light, projecting a dark shadow image on the fluorescent background.
	e. Portable combustible gas meter.	See Item 2.b.
	a. Portable mercury vapor analyzer—ultraviolet light absorption detector. b. Portable mercury vapor analyzer—gold film amalgamation detector. c. Permanganate impingement .....	See Item 2.c.  A known volume of gas sample is absorbed in potassium permanganate solution. Elemental mercury in the solution is determined using a cold vapor adsorption analyzer, and the concentration of mercury in the gas sample is calculated.

TABLE 7 TO SUBPART IIIII OF PART 63—REQUIRED ELEMENTS OF WASHDOWN PLANS

As stated in §63.8192, your written washdown plan must address the elements contained in the following table:

For each of the following areas . . .	You must establish the following as part of your plan . . .
1. Center aisles of cell rooms ..... 2. Electrolyzers 3. End boxes and areas under end boxes 4. Decomposers and areas under decomposers 5. Caustic baskets and areas around caustic baskets 6. Hydrogen system piping 7. Basement floor of cell rooms 8. Tanks 9. Pillars and beams in cell rooms 10. Mercury cell repair areas 11. Maintenance shop areas 12. Work tables 13. Mercury thermal recovery units 14. Storage areas for mercury-containing wastes	A description of the manner of washdown of the area, and the washdown frequency for the area.